BIBLIOGRAPHICAL RECORD.

Authors and societies are requested to forward their works to the editors as soon as published. The date of publication, given in brackets [], marks the time at which the work was received, unless an earlier date of publication is known to recorder or editor. Unless otherwise stated each record is made directly from the work that is noticed.

Corrections of errors and notices of omissions are solicited.

Abbott, C: C. Swarming of a broad of winged ants [formica]. (Amer. nat., June 1873, v. 7, p. 369-372.)

G: D. (1556)

Aldrich, C: Wrens and the bee-moth. (Amer. nat., April 1879, v. 13, p. 262.)
Thinks wrens, which nested near hives of anis mellifica,
finks wrens, where of galleria cereana.

G: D. (1557)

lessened the number of galleria cereana.

American association for the advancement of science — Entomological club — Saratoga [N. Y.] meeting (1879).] Convention of scientists. (Springfield [Mass.] d. republican, 27 Aug. (Springheit Lands) 1879, p. 4, col. 6, 10 cm.)

Notice of the meeting of the association, and of the G: D. (1558)

doings of the club.

Balfour, Francis Maitland. On certain points in the anatomy of peripatus capensis. (Zool. Anzeiger, 23 June 1879, jalung. 2. p. 332–335.)
Affinities of peripatus based upon study of the segmental organs, the nervous system and the so-called fat bodies of Moseley. G: D. (1559)

Baly, Joseph S. Descriptions of a new genus and of new species of halticinae. (Ann. and mag. nat. hist., April 1878, s. 5, v. 1, p. 312.)
Describes the genus oedionychis, and o. recticollis and o. chevrolutii, from Mexico. R. H. (1560)

Boisduval, Jean Alphonse. Species général des lépidoptères hétérocères. Par MM. Boisduval et Guenée. Tome 1er. Sphingides, Sésiides, Castnides. Paris, Roret, 1874. 4 + 568

p., 23×15 . General classification and description of species of the families mentioned. References to the discussion of North American material are contained in Psyche, 1879, v. 2, p. 265-270. B: P. M. (1561)

Bowditch, F: C. Habits of monohammus den-(Amer. nat., Aug. 1873, v. 7, p. 498tator.

Describes larva, pupa, and borings in pinus mitis. G: D. (1562)

Breitenbach, Wilhelm. Ueber die Function der Saftbohrer der Schmetterlingsrüssel. (Entom. Nachrichten, 15 Feb. 1880, jahrg. 6, p. 29-34.)

Discusses the function of Fritz Müller's "Schmeckstifte" on the end of the proboscis of lepidoptera. G: D. (1563)

Breitenbach, Wilhelm. Zur Systematik der Lepidopteren. (Zool. Anzeiger, 11 Aug. 1879,

jahrg. 2, p. 427-428.)
Consideration of the appendages of the proboscis as a basis for grouping lepidoptera.

G: D. (1564)

Brendel, F: Intelligence in canthon. (Amer. nat., Oct. 1879, v. 13, p. 654-655.)

Cochineal insect (The). (Journ. applied sci., Jan. 1880, v. 11, p. 11, 27 cm.)

Reprint of H. B. M.'s "Curious facts concerning the cochineal insect..." (Sci. amer., 22 Nov. 1879, v. 4, p. 325, col. 1,) [Psyche, Rec., no. 1536].

G: D. (1566)

Colman, A. R. Premium essay on the diseases of swine. (Trans. dept. agric. state of Ill. for 1877, 1878, v. 15, [n. s., v. 7,] p. 323–350,

Treats (p. 328-331, fig. 3) of mange or itch—scabies—caused by sarcoples suis, and gives a highly magnified figure of the insect.

B: P. M. (1567)

Cook, Albert J: A formidable bee-enemy, mutilla coccinia. (Amer. bee journ., 1879, v. 15, p. 464.)

Enters hives and kills and eats bees. Seems not to mind the attacks of the bees. Found from Mo. to Texas. A. J: C. (1568)

Cook, Albert J: Another bee enemy, erax? (Amer. bee journ., 1879, v. 15, p. 399.)

A species of erax from Louisiana kills bees; described dispured.

A. J. C. (1569) and figured.

Cook, Albert J: Bee enemy, stivetrus diana. (Amer. bee journ., 1879, v. 15, p. 370.)

This bug sucks the blood from the bees in North Caro-na. A. J: C. (1570)

Cook, Albert J: Honey dew on the tamarack. (Amer. bee journ., 1879, v. 15, p. 353.)

This nectar appears in great quantity, and is very attractive to the bees. It is shown to come from the lacknus carricifex. The character and habits of the louse are described.

A. J: C. (1571)

Cook, Albert J: The lecanium of the tulip tree. (Amer. nat., May 1879, v. 13, p. 324-326, il.)

(Amer. nat., May 1019, v. 19, p. 62-629, n. Describes and figures females of lecanium tulipiferae, a new species found on liliodendron tulipifera, at Lansing, Michigan. Apis mellifica collects the exudation from this lecanium. How to destroy lecanium tulipiferae.

G: D. (1572)

Cook, Albert J: Parthenogenesis in the honeybee. (Amer. nat., June 1879, v. 13, p. 303–394.) Defense of Dzierzon's theory of parthenogenesis of apis mellifica against the statements quoted in "The oviposition of the queen bee and Dzierzon's theory" (Amer. nat., April 1879, v. 13, p. 200-261) [Psyche, Rec., no. 1621]. A note by Editors Naturalist is added.

G: D. (1573) Cook, Albert J: Pollen masses of species of asclepias not destructive to bees. (Amer. bee journ., 1879, v. 15, p. 426.)

A. J: C. (1574)

Cook, Albert J: The sting of the worker bee. (Amer. bee journ., 1879, v. 15, p. 542, il.) The sting and method of using it are described. A. J. C. (1575)

Cook, Albert J: The tongue of the honey bee. (Amer. bee journ., 1879, v. 15, p. 490, il.)

The tongue and the method of sipping honey are de-rihed. A. J. C. (1576)

Corey, J: G. Remedy for foul brood. (Amer. bee journ., 1879, v. 15, p. 324.)
This is a fungoid disease, fatal to larval bees. "A sure

A. J.: C. (1577)

cure " is described.

Croneberg, A. Ueber die Giftdrüsen von solpuga. (Zool. Anzeiger, 25 Aug. 1879, jahrg. 2, p. 450-451.)

G: D. (1578)

Dadant, C: Granulation of honey a test of purity. (Amer. bee journ., 1879, v. 15, p. 1.) It is asserted that only pure honey granulates, though some kinds of honey will not crystalize. A. J: C. (1579)

Decoction of the tomato-plant [lycopersicum esculentum] as an insecticide. (New remedies, Oct. 1879, v. 8, p. 294, 4 cm.)

From Pharm. journ. and trans.; originally from the Deutsche Gärtner-Zeitung. G: D. (1580)

Dewitz, H. Insectenmisbildung. (Zool. zeiger, 10 March 1879, jahrg. 2, p. 134-136, 1

Rg.) Foot on the left side of the breast of the larva of atta subaris from Cuba. G: D. (1581) insularis from Cuba.

Dezso, Béla. Uber den Zusammenhang der Kreislaufs- und respiratorischen Organe bei den Arthropoden. (Zool. Anzeiger, 11 Nov. 1878, jahrg. 1, p. 274.)

Brief summary of results of study at the zoological station at Triest. "In the insecta, arachnida and myriapoda there are as many pairs of openings in the dorsal vessel as there are pairs of stigmata."

G: D. (1582)

Doryphora decemlineata reduces the starchproduction of Coos co., N. H. to one-tenth what it formerly was.] (Springfield [Mass.] what it formerly was.] (Springfield [Mass. d. republican, 28 Nov. 1879, p. 6, col. 6, 2 cm.) $G: \hat{D}.$ (1583)

Edwards, W: H: Ueber das Erziehen der Tagfalter aus Eiern. (Entom. Zeitung . . . zu Stettin, Oct.-Dec. 1879, jahrg. 40, p. 455-456.) How to obtain eggs of butterflies for rearing.

Ğ: D. (1584)

Eichhoff, W. Zur Entwicklungsgeschichte der Borkenkäfer [scolytidae]. (Entom. Zeitung . . . zu Stettin, Oct.-Dec. 1879, jahrg. 40, p. 501–506.) On European species. G: D. (1585)

Physiologie der Spinndrüsen der Seidenraupe. (Zool. Anzeiger, 26 Aug. 1878, jahrg. 1, p. 100-According to researches made upon bombyx mori by Th. van Lidth de Jeude. G: D. (1586)

Engelmann, Th. W. Zur Anatomie und

W. van Lidth de Jeude.

Fabre, J. H. Souvenirs entomologiques: Études sur l'instinct et les mœurs des insectes. Souvenirs entomologiques: Paris, C. Delagrave, 1879. t,-p. cover, [4+] 324 p., 19 × 12, t 14 × 8.5. 3 fr. 50 c.

Biological observations and experiments upon different insects.

insects. Contents: Le scarabée sacré, La volière, Le cerceris bupresticide, Le cerceris tuberculé, Un savant tueur, Le sphex à ailes jaunes, Les trois coups de poignard, La larve et la nymphe, Les hautes théories, Le sphex languedocien, Science de l'instinct, Ignorance de l'instinct, Une ascension au mont Ventoux, Les émigrants, Les ammophiles, Les bembex, La chasse aux diptères, Un parasite—le cocon, Retour au nid, Les chalicodomes, Expériences, Echange des nids, Notes (in which 4 new species of French hymenoptera are described).

Faucon, L. Expérience relative au transport des phylloxeras par le vent. Lettre à M. Dumas. (Comptes rendus, 8 Dec. 1879, v. 89, p. 983.)

Fertilization of flowers by humming-birds. (Amer. nat., Feb. 1880, v. 14, p. 126-127. Observations in which bees do not appear to fertilize impatiens fulva.

Focke, W. O. Tabak und Hummeln. mos [Leipzig], March 1880, Bd. 6, p. 473-474,

46 cm.)

Bombus lapidarius learned to pierce the flowers of a
hybrid between nicotia rustica, and n. paniculata, in order
G: D. (1587)

Fremy, Edmond. Questions relatives au phylloxera, addressées à M. P. Thenard. (Comptes

rendus, 1 Dec. 1879, v. 80, p. 924-926.)
Upon the use of carbon disulphide [CS2]. See A. P. E.
Thenard's "Réponse aux questions de M. Fremy . . ."
[Psyche, Rec., no. 1623].

French, G: Hazen. Economic entomology of Illinois. Part 2. Lepidoptera, or butterflies and moths, and their larva, or caterpillars. (7th pept. state entomologist Ill., for 1877, 1878, Describes about 115 species in most of their principal

stages of development, treating of the habits of the more prominent species, and of remedies for their ravages. Gives (p. 269-273) analytical tables of the families and genera represented in this paper.

B: P. M. (1592)

French, G: Hazen. Report of the curator of the museum. (5th annual rept. of principal to board of trustees of Southern III. normal university, 1879, p. 25-42.)

Separate, with t.-p. cover, entitled, "Report of the curator." Carbondale, Ill., 1879, p. 25-

 $42, 21 \times 13.$

42, 21×10 . Report upon work done in and of additions to the museum during the past year; analytical tables of the butterflies of Illinois, distinguishing 4 families, 36 genera and 113 species. B: P. M. (1593)

French, G: Hazen, see Thomas, Cyrus, and G: Hazen French, Notes on corn insects, . . . [Psyche, Rec., no. 1624].

Gerhard, Bernhard. Systematisches Verzeichniss der Macro-lepidopteren von Nord-Amerika. Leipzig, 1878. 16 + 196 p., 20×13 , t 15.5×9 . Pap., M. 4.50.

Crit. rev., by H. A. Hagen, entitled "Gerhard's . . . Amerika." (Entom. Zeitung . . . zu Stettin, Oct.–Dec. 1879, Jahrg. 40, p. 475–476.) List with authorities, synonyms, and, in part, habitats of the species. Index of species and of genera. Reviewed in Psyche, April 1880, v. 3, p. 54.

[Glossina morsitans, the tsetse fly, cannot kill elephants.] (Springfield [Mass.] d. republican, 16 Dec. 1879, p. 5, col. 5, 3 cm.)

G: D. (1595)

Graber, Vitus. Die abdominalen Tympanalorgane der Cikaden und Grylloden. (Denkschriften d. kais. Akad. d. Wissensch., math.naturwissensch. Classe, 1876, bd. 36, p. 273-296, 2 pl.)

Separate, with t.-p. cover and t.-p., Wien, K. Gerold, 1876, 24 p., 2 pl., 30×25 , t 23×17.2 .) Chiefly anatomical.

Greene, J. W. Bees eaten by shrew, sorex. (Amer. bee journ., 1879, v. 15, p. 108.) The small shrews enter the hives and eat the bees.

A. J.: C. (1597)

Hagen, Hermann August. Troublesome insects. The carpet beetle and other domestic pests. An interesting communication to the Boston society of natural history [18 Dec. 1878]. (Boston d. advertiser, 19 Dec. 1878, no. 21940, v. 132, no. 147, p. 1, col. 9–10, 103 em.)

Ravages and migrations of Anthrenus scrophulariae; means against it. Abundance of Pulex irritans. Migrations of insects and plants.

B: P. M. (1598)

Hagen, Hermann August. Hoehlen-Chelifer

in Nord-America. (Zool. Anzeiger, 28 July 1879, jahrg. 2, p. 399-400.)

Notes on chihonius without eyes, with one pair of eyes and with two pairs of eyes; chelifer parasitic under the elytra of alaus, acanthocinus, passalus, and on the legs of flies; the groups of the chernetidae.

G: D. (1599)

Gerhard's syst. Hagen, Hermann August. Verzeichniss der Macrolepidopteren von Nord Amerika. (Entom. Zeitung . . . zu Stettin, Oct.-Dec. 1879, Jahrg. 40, p. 475-476.)
A crit. rev. of the above named work [Psyche, Rec., no. 6: D. (1600)

Hogarty, W. G. Do bees injure fruit? (Amer. bee journ., 1879, v. 15, p. 314.)

The answer is no. Many authors are quoted, and much perimental evidence given.

A. J: C. (1601) experimental evidence given. Hopffer, Carl [Heinrich]. Exotische Schmet-

Oct.—Dec. 1879, jahrg. 40, p. 413–454.)
Mostly on South American species. Note (p. 435) on stribution of agraulis vanillae.

G: D. (1.62) distribution of agraulis vanillae.

Illinois — State entomologist [1877 (Cyrus Thomas)]. 7th report . . . on the noxious and beneficial insects of the state of Illinois. 2d annual report by Cyrus Thomas. Springfield, Ill., 1878, 290 p., 23 × 14, t 18 × 10.5, 48

Rev., entitled, "Thomas' Noxious insects of Illinois." (Amer. nat., Jan. 1879, v. 13, p. 34.) Illinois." (Amer. nat., Jan. 1879, v. 13, p. 34.)
General annual account (p. 3-14) of the more important
insects noticed; statistics of the value of birds as destroyers of insects, and of the injury done to the corn crop by
insects. Table of contents (p. 274). Errata and corrigenda
(p. 275). List of illustrations (p. 276). Index to the plants
and other substances injured by insects mentioned in this
report (p. 277-283). General index (p. 284-290). Contains
the following distinct essays, q. v.
THOMAS, Cyrus and G: Hazen French, Notes on corn
insects, or insects injurious to indian corn (p. 15-106, fig. 1
-23) [Psyche. Rec., no. 1624].

пявесть, от известв индигоиз to indian corn (р. 15–106, fig. 1–23) [Ряхсне, Rec., no. 1624].

Sмітн, Miss Emma A. Report (р. 107–131, fig. 24–31) [Ряусне, Rec., no. 1622].

French, G: Hazen. Economic entomology of Illinois. Part 2. Lepidoptera, . . . (р. 133–273, fig. 32–48) [Ряусне, Rec., no. 1592].

Illinois, state of — Department of agriculture. Transactions . . . with reports from county agricultural boards, for . . .1877. Ed. by S. D. Fisher, secretary. Vol. 15, old s.; vol. 7, n. s. Springfield, Ill., 1878. [4]+420+6 p., $23\times$

Springfield, Ill., 1878. [4] + 420 + 0 p., 20 × 14, t 18 × 10.5., il.

Announces (p. 9) the proposed publication by Cyrus Thomas of a treatise upon insects injurious to agriculture; contains (p. 16, 19) resolutions adopted by the state board of agriculture with reference to the collections and the reports of the state entomologist, and (p. 78, 131, 221) statistics of the representation of entomology at the annual state and other fairs. For other contents, see Illinos-State board of agriculture, "Report of museum committee" (PSyche, Rec., no. 1607), and Colman, A. R., "Premium essay on the diseases of swine" [PSyche, Rec., no. 1567). The 7th rept. of the state entomologist, by Cyrus Thomas, is bound with these transactions in one volume.

B: P. M. (1604)

Illinois — State board of agriculture. Report of museum committee [D. B. Gillham, H. D. Emery, S. D. Fisher]. (Trans. dept. agric. state of Ill. for 1877, 1878, v. 15, [n. s., v. 7,]

p. 96-111.)
List of 1782 insects of 368 species, sent by Cyrus Thomas, state entomologist, to state board of agriculture, and placed on exhibition in 60 cases in the museum of the board at B: P. M. (1605)

Insect borer in powder barrels (An.) (Amer.

nat., April 1879, v. 13, p. 262.)

Larva of callidium variabile bores the hoops of powder

G: D. (1606) barrels.

Italian silk. (Journ. applied sci., Oct. 1879, y 10, p. 149, 14 cm.)

Statistics of silkworm raising and silk manufacture in G: D. (1607) Milan.

Juice of the tomato-plant [lycopersicum esculentum] as an insecticide (The). ("Gardener's chronicle,"...) (Springfield [Mass.] d. republican, 30 Sept. 1879, p. 3, col. 2, 5 cm.) G: D. (1608) Kadyi, Heinrich. Beitrag zur Kenntnis [sic] der Vorgänge beim Eierlegen der blatta orientalis. (Zool. Anzeiger, 15 Dec., jahrg. 2, p. 632-636.)

G: D. (1609)

Katter, F. Index entomologicus. Pars 1, qua continentur nomina entomologicorum Europae eontinentur nomina entomologicorum Europae exceptis Galliae coleopterologis, societarum auctorumque entomologicorum. Putbus a. Rügen, A. Dose, 1880. t.-p. cover, [4+] 124 p., 16×11.5, t 13×7.7. Pam., M. 1.60. Contains the names of 73 American entomological collectors desiring exchange, extracted from the Naturalists' directory [ed. 1878], and a list of entomological societies and publications from all parts of the world. Reviewed in PST-CHE, April 1880, v. 3, p. 54.

Kraatz, Gustav. Ein Wort gegen die Vermehrung des Ballastes der Synonymie. (Entom. Zeitung . . . zu Stettin, Oct.-Dec. 1879, jahrg. 40, p. 506-508.) G: D. (1611)

Kramer, P. Ueber die postembryonale Entwicklung bei der Milbengattung glyciphagus. (Archiv f. Naturgeschichte, 1880, jahrg. 46, bd. 1, p. 102-110, pl. 7.)

G: D. (1612)

Krauss, Hermann. Otocystenartiges Organ bei tabanus autumnalis Linné. (Zool. Anzeiger, 5 May 1879, jahrg. 2, p. 229-230.)

Landerer, Xaver. Miscellaneous contributions from the Orient. (1964).

1879, v. 8, p. 293-294, 30 cm.)

Directs use of tobacco decoction with fresh leaves and flowers of nerium oleander as a bug poison. [5 cm.]

G: D. (1614) tions from the Orient. (New remedies, Oct.

Lichtenstein, Jules. Les pucerons des ormeaux, avec description de deux insectes nou-

veaux. (Feuille des jeunes naturalistes, Nov. 1879, p. 6-9; Dec. 1879, p. 22-24.) Synopses of the species of aphidae and coccidae found on ulmus campestris, with notes on their biology. Describes pemphigus ulmi and ritsemia pupifera. G: D. (1615)

Lockwood, S: A viviparous fly. (Amer. nat., April 1873, v. 7, p. 193-197, fig. 34-35.)
Larvae of sarcophaga carnaria, experiments upon their vitality in turpentine, in Fowler's arsenical solution and in essence of peppermint. Figures larva, pupa and imago.

Lombard, F. Destruction des acarus et des anthrènes. (Feuilles des jeunes naturalistes,

anthrenes. (Feathers)
Jan. 1880, ann. 10, p. 39.)
Employment of carbon disulphide [CS2] in collections,
Employment and authrenus. G: D. (1617) to destroy acarus and anthrenus.

MacLeod, Jules. Phosphorescence des myriapodes. (Feuille des jeunes naturalistes, Jan. 1880, p. 38.)

Phosphorescence of geophilus electricus. G: D. (1618)

MacLeod, Jules. La respiration chez les insectes. (Feuille des jeunes naturalistes, Oct.

sectes. (Felline des Jeules 1879, ann. 9, p. 148-150.)

A brief account of the respiratory system of insects; how to study it by dissection of dyliscus; mechanism of G: D. (1619)

Machenhauer, F. Präparation der Libellen für Sammlungen. (Entom. Zeitung . . . zu Stettin, Oct.-Dec. 1879, jahrg. 40, p. 539.) Mode of preservation in alcohol. G: D. (1620)

Oviposition of the queen bee [apis mellifica] and Dzierzon's theory (The). (Amer. nat., April 1879, v. 13, p. 260–261.) Crit. rev., by A. J. Cook, entitled, "Parthe-

Crit. rev., by A. J. Cook, entitied, nogenesis in the honey bee." (Amer. nat., June 1879, v. 13, p. 393–394.) Quotation from Comptes rendus, 9 Sept. 1878, p. 408.

G: D. (1621)

Smith, Miss Emma A. Report. (7th rept. state entomologist Ill., for 1877, 1878, p. 107-

131, fig. 24-31.)

Observations made upon noxious insects of northern Illinois, during the summer of 1877. Treats especially of emphytus maculatus, gortyna nitela, argyrolepia quercifoliana and lecanium acericola.

B: P. M. (1622)

Thenard, Arnould Paul Edmond. Réponse aux questions de M. Fremy relatives à l'emploi du sulfure de carbone [CS₂] appliqué à la destruction du phylloxera. (Comptes rendus, 1 Dec. 1879, v. 89, p. 926–931.)

Extract. (Rev. scientifique, 13 Dec. 1879,

p. 573, 12 cm.)
Reply to E. Fremy's "Questions relatives au phylloxera..." [PSYCHE, Rec., no. 1591].

G: D. (1623)

Thomas, Cyrus and G: Hazen French. Notes on corn insects, or insects injurious to indian corn. (7th rept. state entomologist Ill., for 1877, 1878, p. 15–106, 23 fig.)
P. 15–78, fig. 1–18, by Thomas, treats of the coleoptera, orthoptera and hemiptera, especially of blissus leucopterus; p. 79–106, fig. 19–23, by French, treats of the lepidoptera.

B: P. M. (1624)

Thomas, Cyrus, state entomologist of Illinois, see Illinois, — State entomologist [1877].

Trelease, W: On the fertilization of several species of lobelia. (Amer. nat., July 1879, v. 13, p. 427-432, il.) Mention of species of insects visiting species of lobelia.

G: D. (1625) Voges, Ernst. Beiträge zur Kenntniss der Juli-(Zeitsch. f. wissensch. Zool., 1878, v. 31, den.

p. 127-194, pl. 11-13.)

Structure of the hard parts, openings of the tracheal system and their muscles, comparison of these openings with those of other myriapods, glandular apparatus and its secretion in spirobolus cupulifer (new species), copulatory organs and their form as generic and specific characters. Describes 3 new species of julus, 19 of spirostreptus, 13 of spirobolus; none from N. A. G. D. (1626)

Wackerzapp, Omar. Weiteres zur Begattung der Schmetterlinge. (Entom. Nachrichten, 15 Jan. 1880, jahrg. 6, p. 15–17.)

Copulation of aglia tau and the attraction of the female from the male.

G: D. (1627)

Weismann, August. Ueber Duftschuppen. (Zool. Anzeiger, 26 Aug. 1878, jahrg. 1, p. 98-

Scent-cells and scales of wings of lepidoptera. G: D. (1628)